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# Occurrence of Hydrocarbon Degrading Genes in the Soils of the Republic of Tatarstan (Russia)

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

## Abstract

© Published under licence by IOP Publishing Ltd. Oil pollution is one of the most serious environmental problems nowadays. The ability of soils for self-restoration is important, when choosing the strategy of pollution control. This ability depends on the pull of microbes able to decompose hydrocarbons that were present in the nonpolluted soil prior to pollution. In this study, the occurrence of alkane degrading genes in the soils of the Republic of Tatarstan being one of the oil processing regions in Russia, was investigated. It was found that alkane degrading genes belonging to group I were present in 20 of the 25 soil samples, and their abundances ranged between 0.01 and 0.07%. Alkane degrading genes belonging to group II were not detected in the samples investigated, and those belonging to group III were present in all the samples, and their abundances ranged between 0.06 and 7.25%. No correlation between the alkane degrading gene copy numbers and pH and organic carbon content in soils was revealed.

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